Overview

Synonyms	CXCL7,NAP-2
Description	**Rat NAP-2/CXCL7** is a small cytokine belonging to the CXC chemokine family. It is an isoform of Beta-Thromboglobulin or Pro-Platelet basic protein (PPBP). Similar to other ELR domain containing CXC chemokines such as IL-8 and the GRO proteins, NAP-2 has been shown to bind CXCR-2 and recruit and active ateneutrophils through chemotaxis. Although CTAP-III, ² -TG and PBP represent amino-terminal extended variants of NAP-2 and possess the same CXC chemokine domains, these proteins do not exhibit NAP-2 activity. NAP-2 stimulates various processes including mitogenesis, synthesis of the extracellular matrix, glucose metabolism and synthesis of plasminogen activator. Recently, it has been shown that the additional amino-terminal residues of CTAP-III mask the critical ELR receptor binding domain that is exposed on NAP-2 and may account for lack of NAP-2 activity. Recombinant **Rat NAP-2 /CXCL7** produced in *E.coli* is a single non-glycosylated polypeptide chain containing 62 amino acids. A fully biologically active molecule, rrNAP-2/CXCL7 has a molecular mass of 6.9 kD analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Accession No	Q99ME0
Source	*E. coli*
Biological Activity	The EC_{50} value of Rat NAP-2/CXCL7on Ca^{2+} mobilization assay in CHO-K1/G±15/rCXCR2 cells (human G±15 and Rat CXCR2 stably expressed in CHO-K1 cells) is less than 200 ng/ml.
Sequence	Ile^{46}-Ile^{107} (Accession #:Q99ME0)

Properties

Measured Molecular Weight	6.9 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH_2O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant **Rat NAP-2/CXCL7** remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Rat NAP-2/CXCL7 should be stable up to 1 week at 4°C or up to 3 months at -20°C.
Note	For research use only

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